

Claims

1. Method for determining the position of a second component (10) in a stepped bore (6) of a housing (1), in particular an injector housing, having two bores (6a, 6b) with two different diameters (d_1 , d_2), the second component (10) to be arranged in the second bore (6b) at a predefined distance (H) from a lower side (17a) of a first component (2), which is already fixed in the first bore (6a) with a smaller diameter (d_1) and a coining ring 3 being inserted into the larger second bore (6b) up to a step (17) of the stepped bore (6), a lower annular surface (17) of the coining ring 3 being compressed by a die (4) until the predefined distance (H) is achieved between the lower annular surface (17) of the coining ring 3 and the first component (2), characterized in that a longitudinal bore (18) is arranged in the die (4), into which a probe (5) is inserted until it comes into contact with the first component (2), a first reference mark (B) is marked on the die (4) and a second reference mark (C) is marked on an end piece (E) of the probe (5), a reference measurement (x) being created for the predefined distance (H) between the two reference marks (B, C) and the stamping process being terminated when a value is achieved for the reference measurement (x) which corresponds to a required distance (H).

2. Method according to Claim 1, characterized in that during compression of the coining ring 3 the reference measurement (x) is monitored using a mechanical or optical measuring device (7).

3. Method according to Claim 1, characterized in that the reference measurement (x) is recorded using an electrical measuring device (7).

4. Method according to one of the preceding claims, characterized in that the two components (2, 10) are inserted into a stepped bore (d1, d2) of a housing (1) of a fuel injector.

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5. Method according to one of the preceding claims, characterized in that the first component (2) is configured as a piezo-electric actuator.

10 6. Method according to one of the preceding claims, characterized in that the first component (2) is configured as the base plate of the actuator.

7. Injector for fuel injection into an internal combustion
15 engine of a motor vehicle, with a first component (2) that is fixed in a smaller first bore (6a) of a stepped bore (6) of the injector housing (1) and with a coining ring 3 that rests on a step (16) of the stepped bore (6), which is formed by a larger second bore (6b), the height of the coining ring 3
20 being stamped with a die (4) to exactly a predefined distance (H) from the first component (2), characterized in that the coining ring 3 has an annular width (d3), which is wider than the step width (d4) of the step (16) in the stepped bore (6), as a result of which the action of a force is created between
25 the second component (10) and the stepped bore (1) over an enlarged contact surface of the annular width (d3) of the coining ring 3.

8. Injector according to Claim 7 or 10, characterized in that
30 the coining ring 3 is configured to be smooth, preferably polished and/or flat at the bearing surface for the second component (10), preferably perpendicular to the axis of the stepped bore (6).

9. Injector according to one of Claims 7, 8 or 10,
characterized in that the second component (10) is configured
as a stroke inverter.

5 10. Injector according to Claim 7, 8 or 9, characterized in
that the second component is configured as a nozzle body or
activation element of a servo-valve.